

FIGURE 1

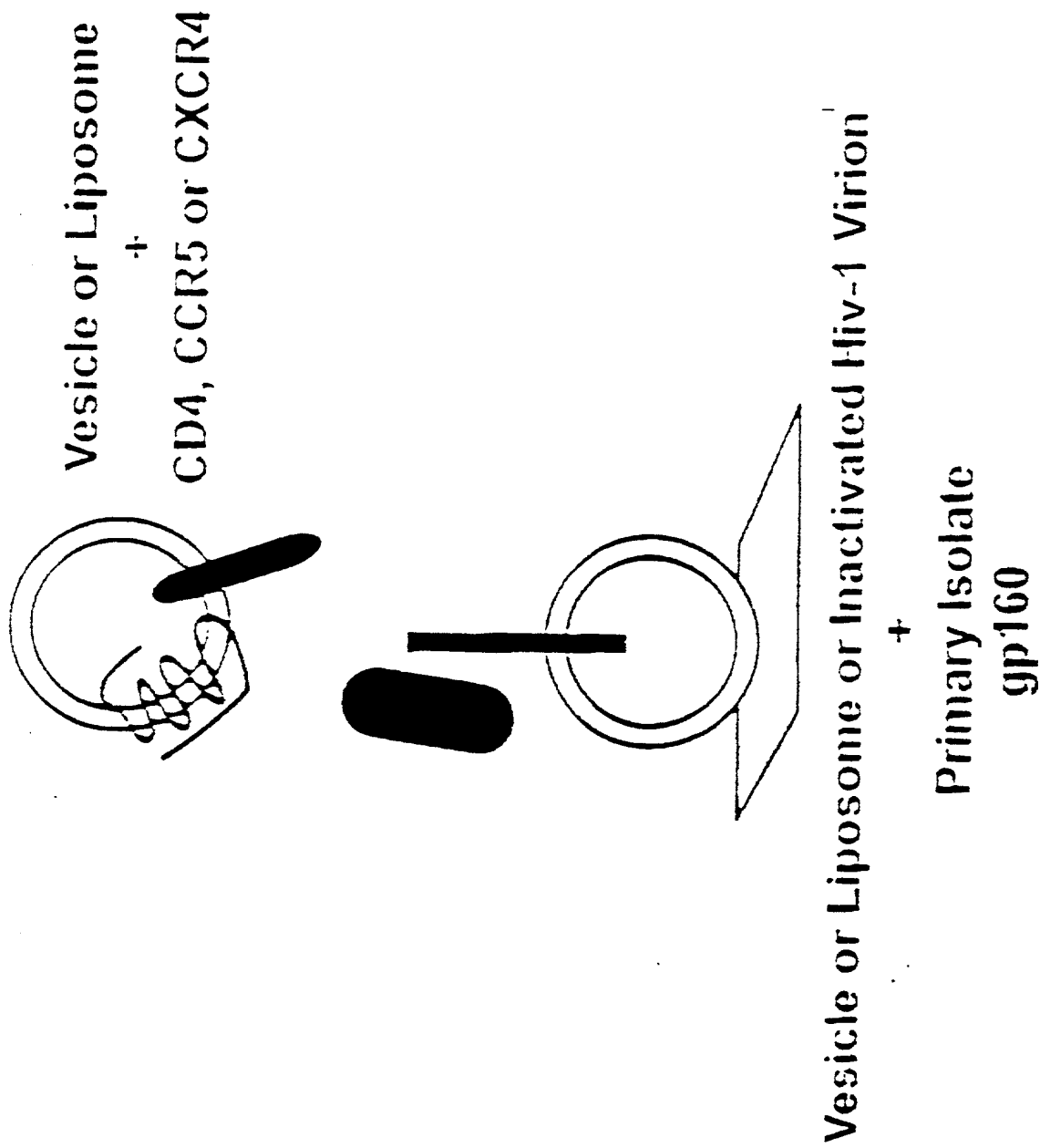


FIGURE 2

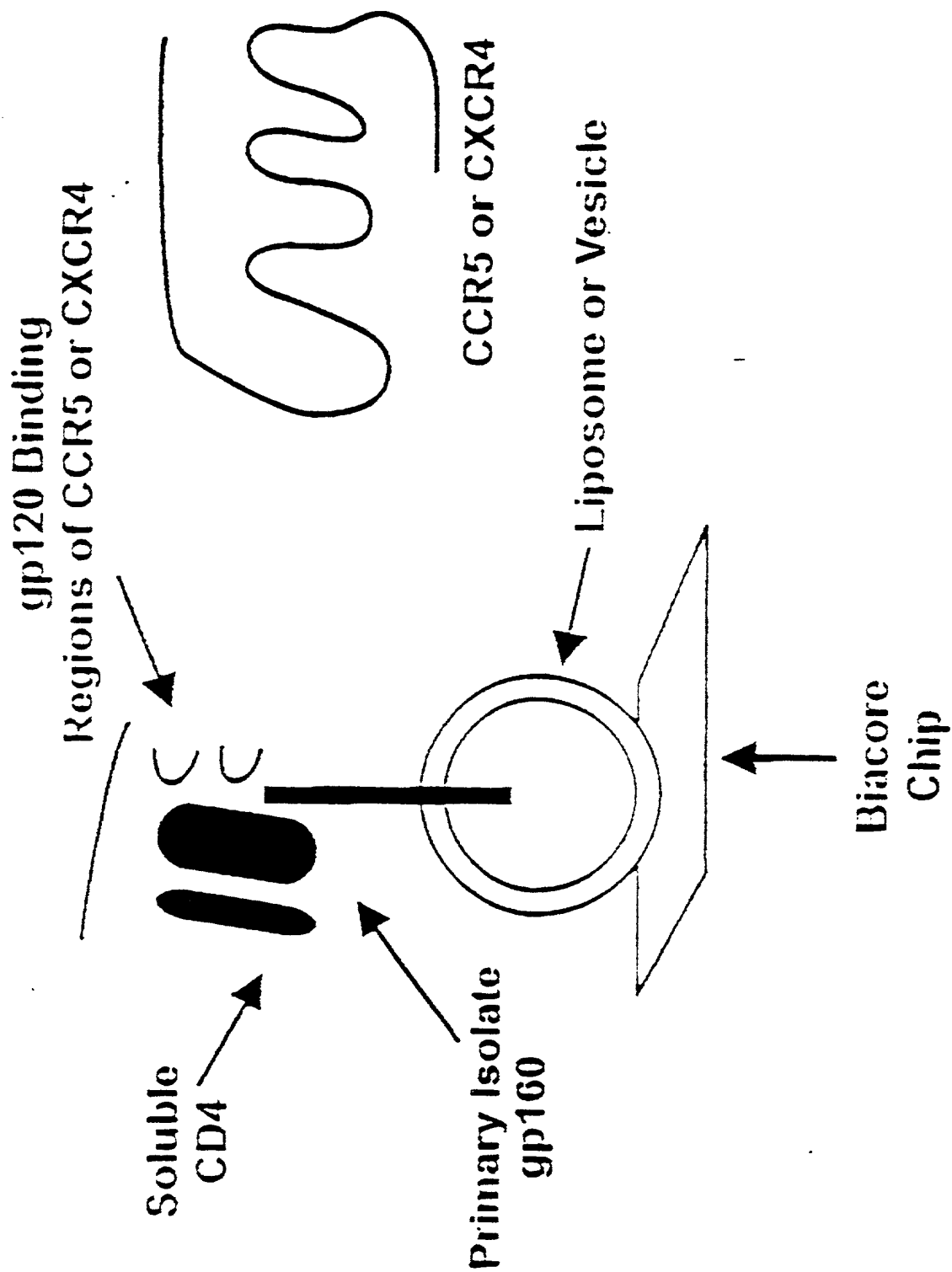


FIGURE 3

BIACore measurements of binding interactions between soluble gp120 (DH12) and CD4

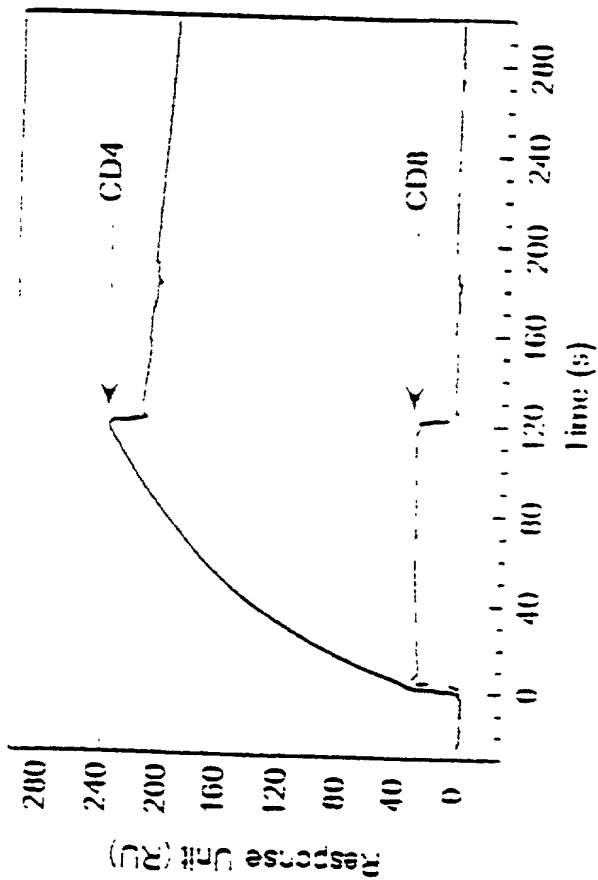


FIGURE 4

Binding interactions between soluble gp120 proteins and CD4

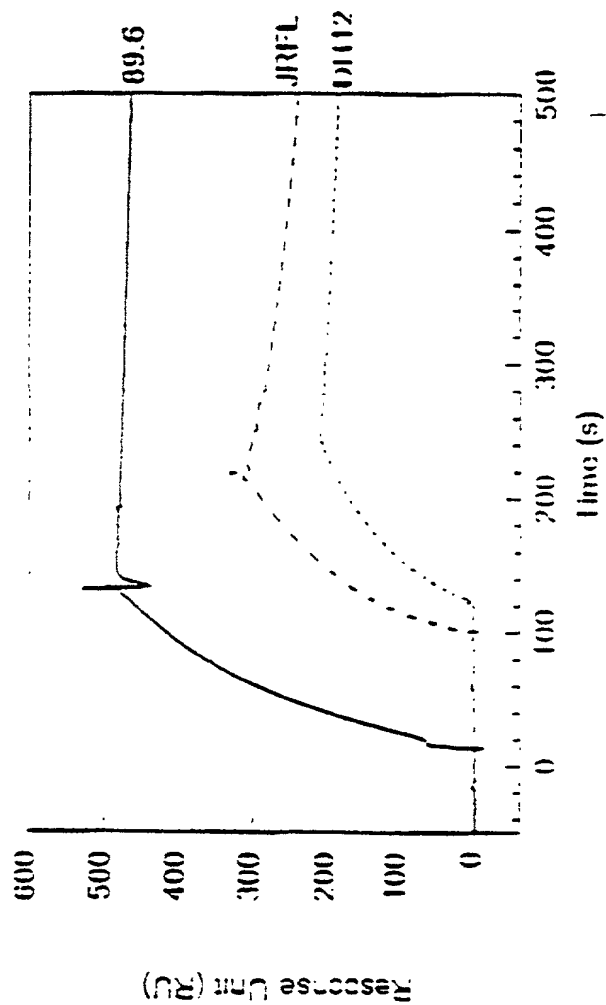


FIGURE 5

Kinetics and binding affinities of the interactions between gp120 and CD4

gp120	$k_{on}, M^{-1}s^{-1}$ (on-rate)	k_{off}, s^{-1} (off-rate)	K_d M	$t_{1/2}$ min
JRFL	6.0×10^3	8.84×10^{-4}	1.5×10^{-7}	14
DH12	4.9×10^3	3.86×10^{-4}	7.8×10^{-8}	30
89.6	4.6×10^3	8.48×10^{-5}	1.8×10^{-8}	136

FIGURE 6

Binding of soluble CD4 to gp120-expressing membranes from CHO-wt cells

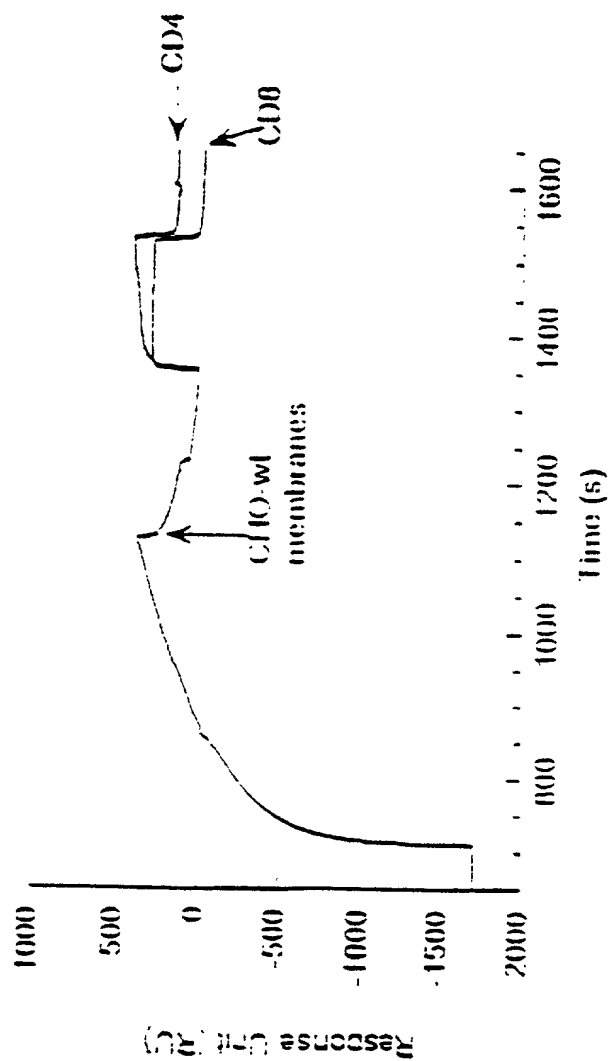


FIGURE 7

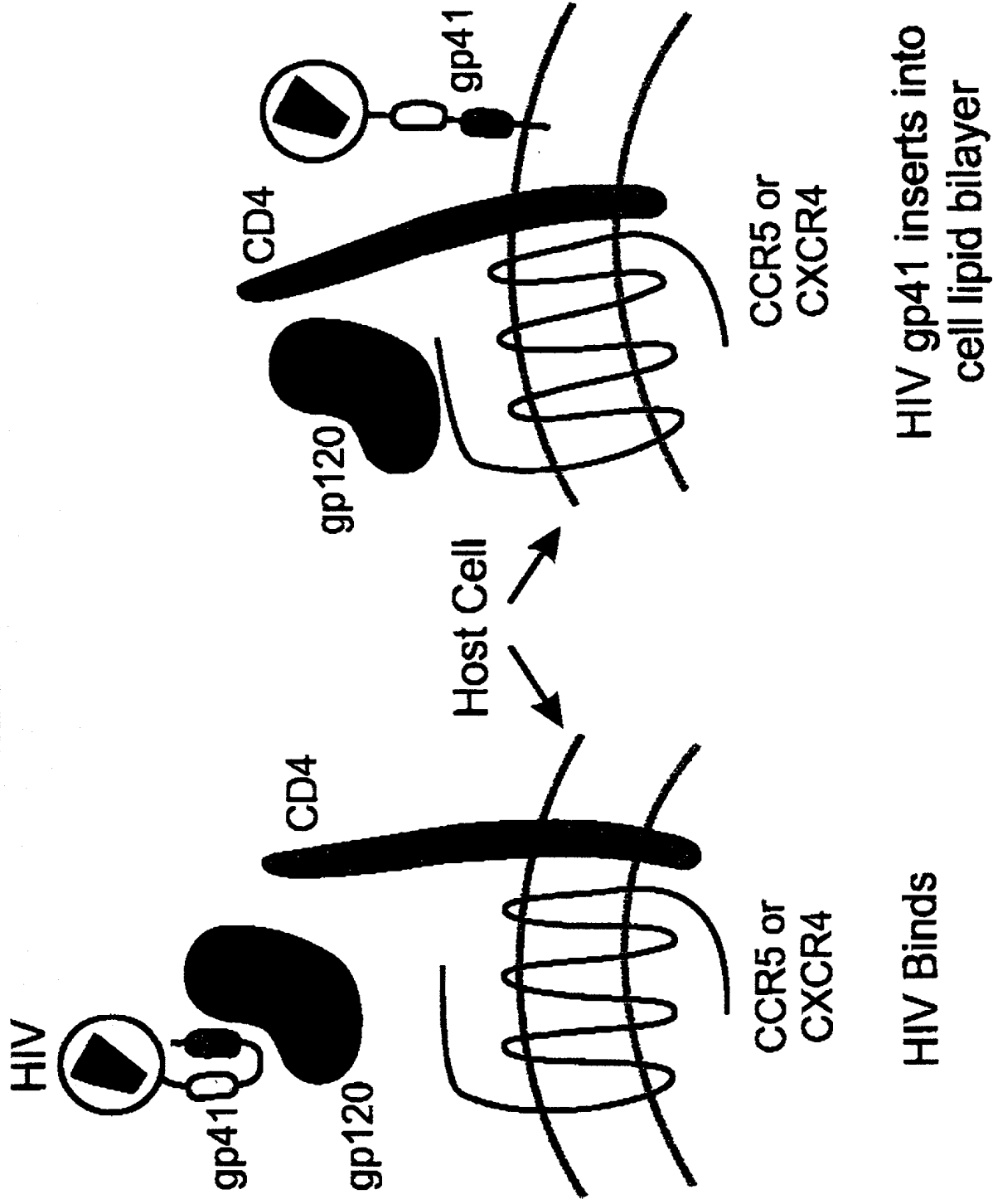
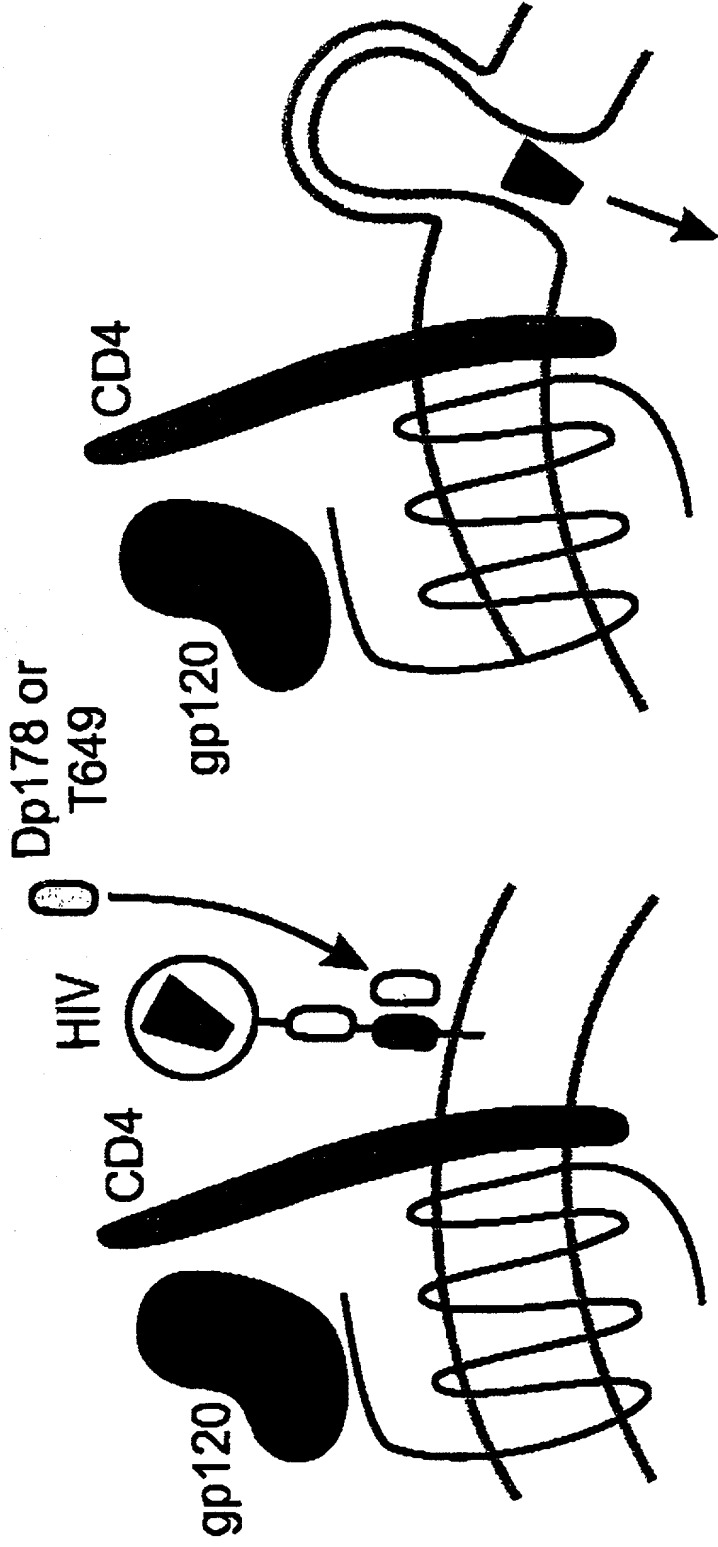


Figure 8



CCR5 or
CXCR4

HIV fusion blocked
by Dp178 or T649
peptides producing
“frozen” fusion intermediate

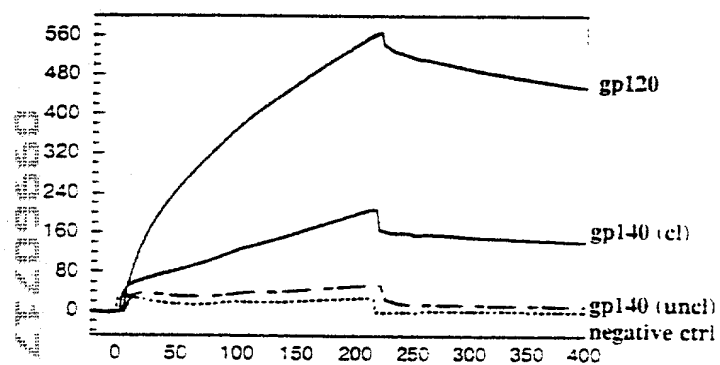
CCR5 or
CXCR4

HIV fusion occurs
in the absence of
fusion inhibitory
peptide

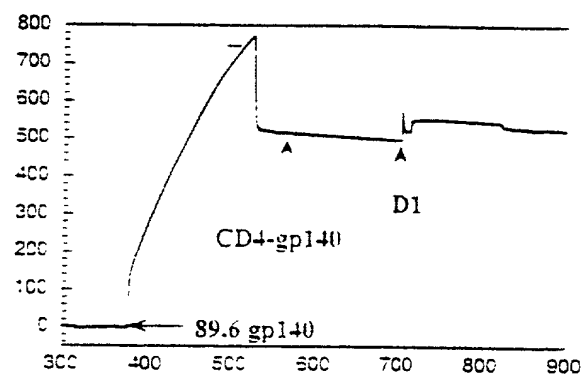
Figure 9

Figure 10

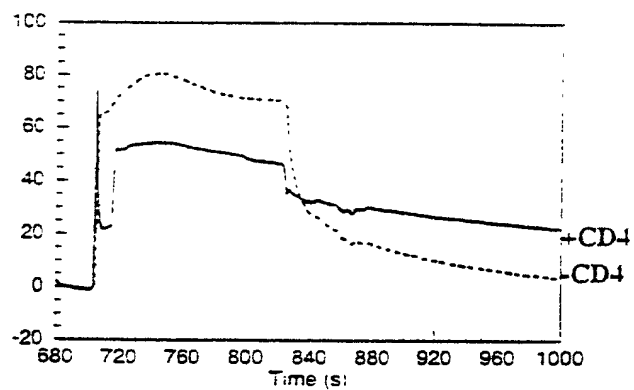
A)



C)



D)



B)

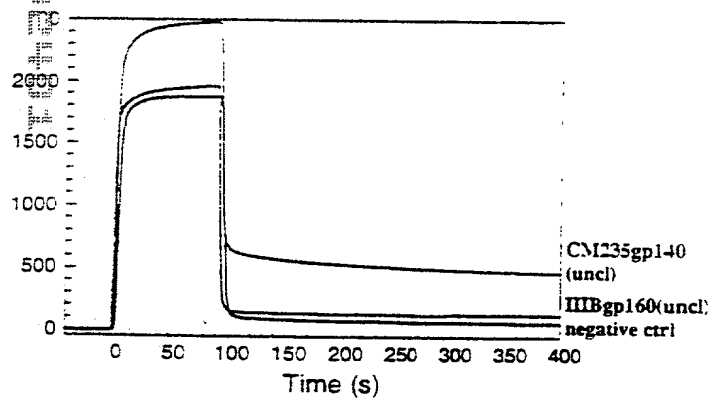
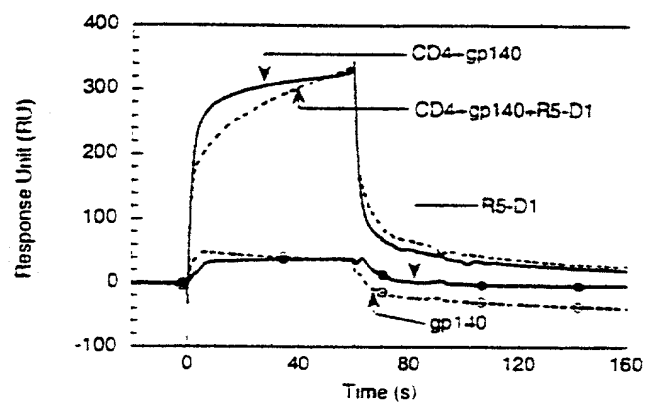
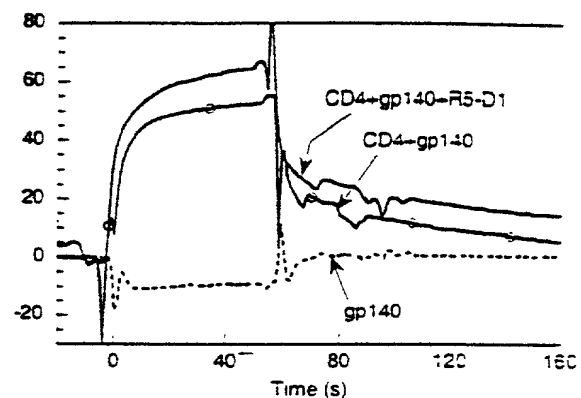


FIGURE 11

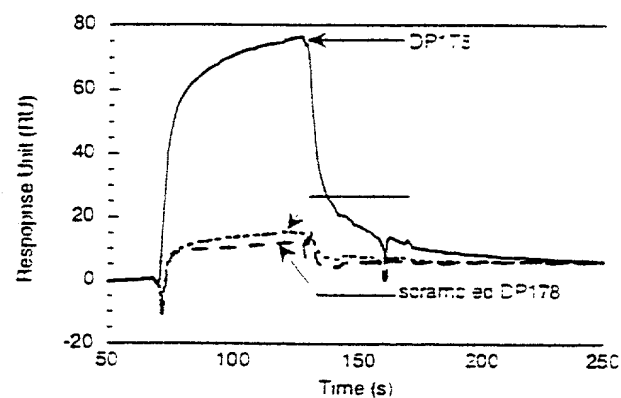
A)



B)



C)



D)

89.6 gp140	k_a M ⁻¹ s	k_d s ⁻¹	K_d μM	$t_{1/2}$ s	R_{eq} RU
<u>DP178</u>					
CD4-gp140	7.9×10^3	5.6×10^{-3}	0.7	124	320
CD4-gp140-R5-D1	3.47×10^3	3.86×10^{-3}	1.1	180	323
gp140-R5-D1	nm	nm	nm	nm	38
gp140	nm	nm	nm	nm	35
<u>T649Q1</u>					
CD4-gp140	6.2×10^3	1.46×10^{-2}	2.4	48	53
CD4-gp140-R5-D1	5.1×10^3	5.3×10^{-3}	1.0	131	64
gp140-R5-D1	nm	nm	nm	nm	0
gp140	nm	nm	nm	nm	0

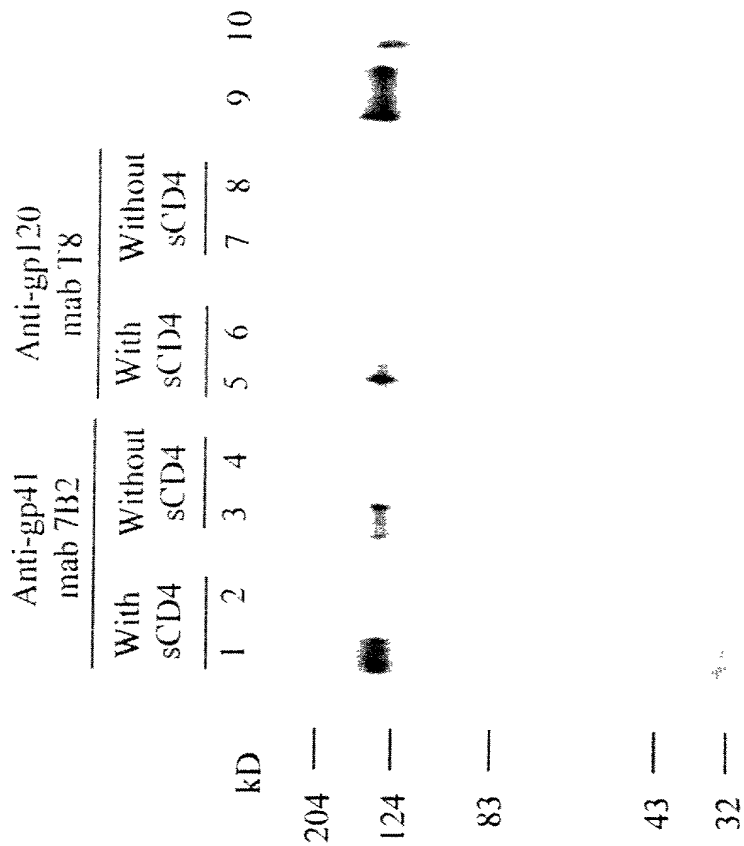
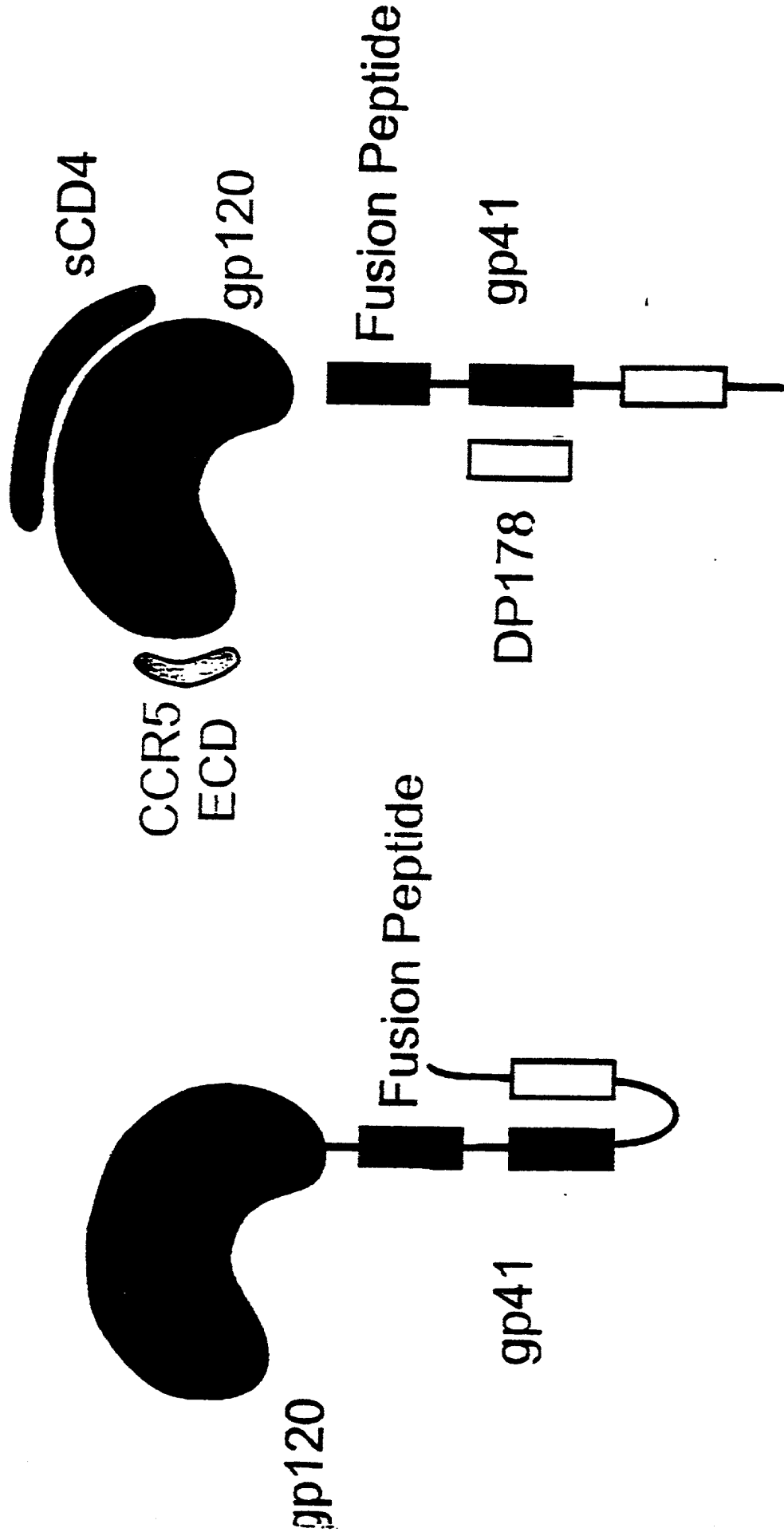


Figure 12

Induced Binding of HR-2 Peptides to Soluble HIV 89.6 gp140 Envelope



11257-100000

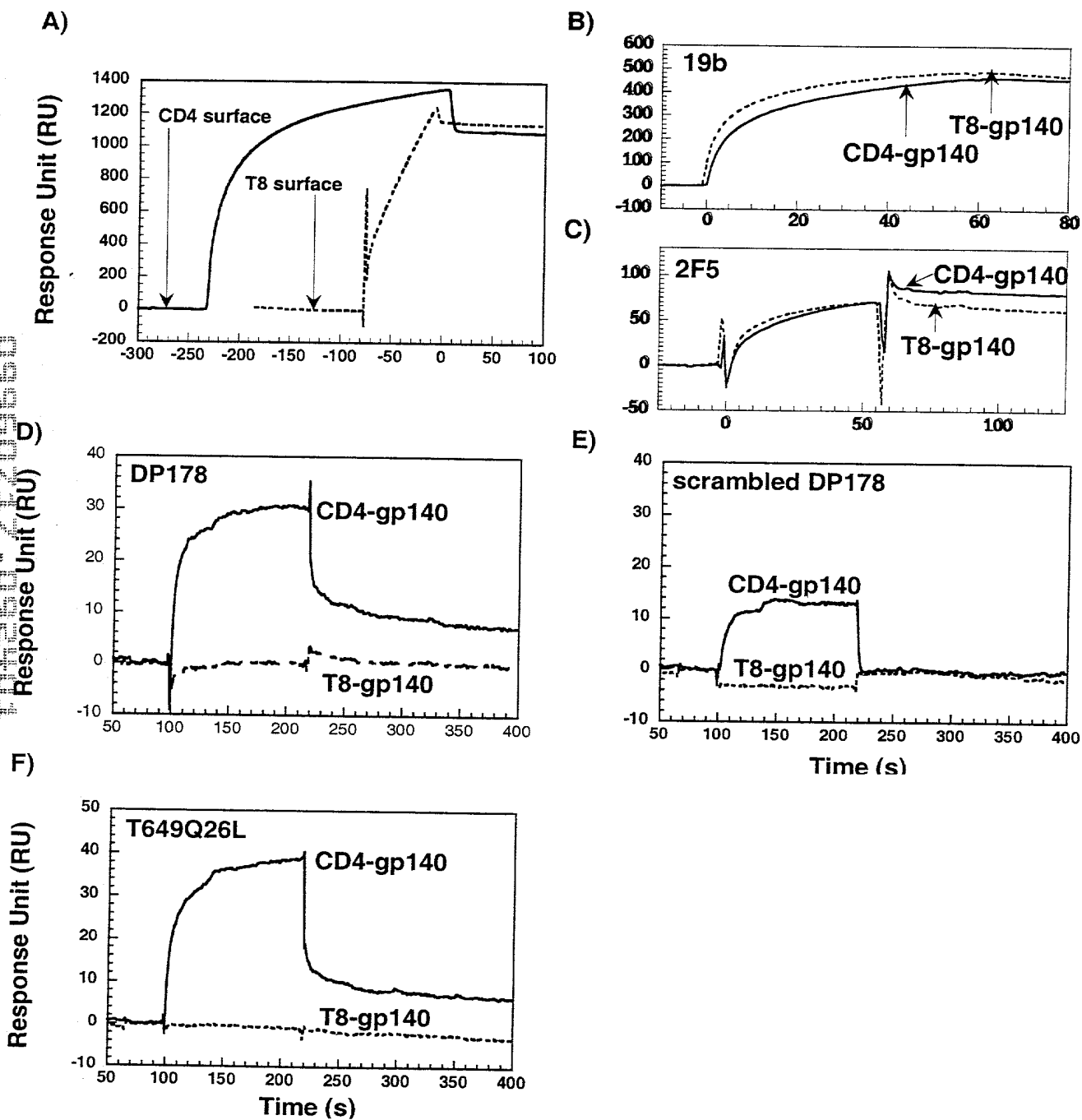
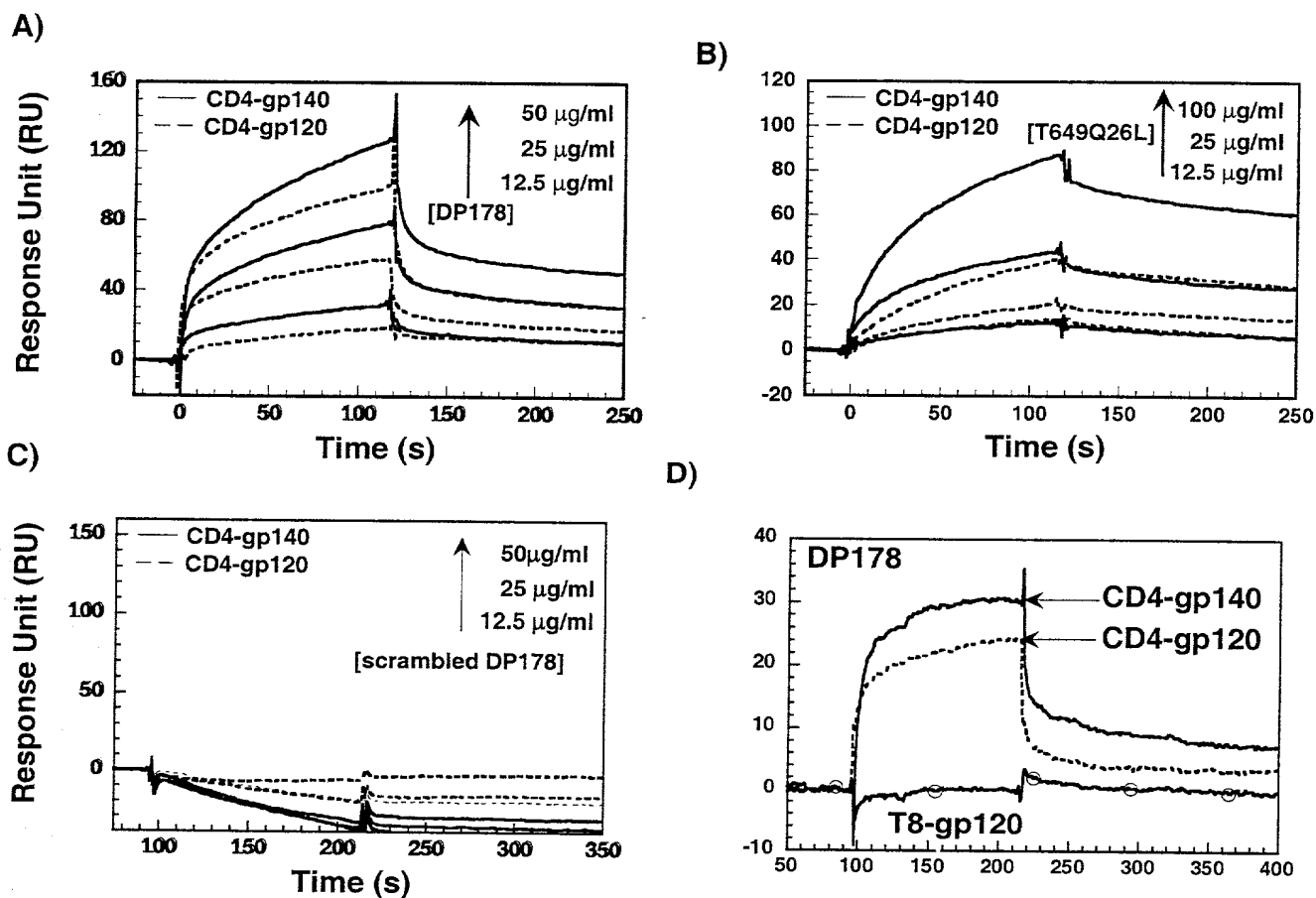


Figure 14

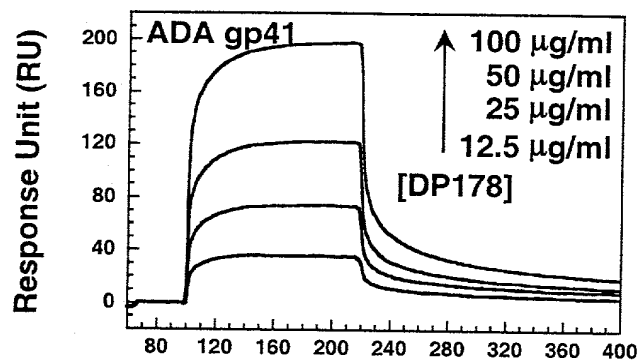


E)

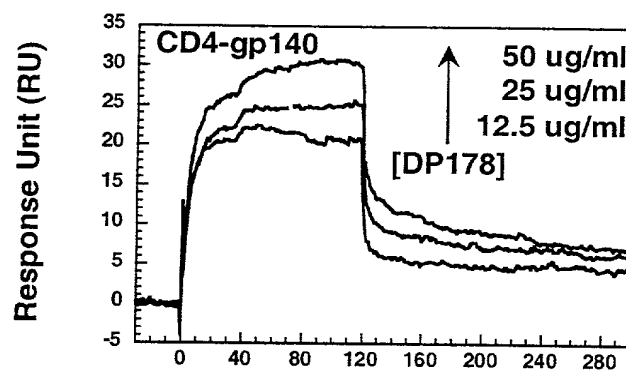
	k_{on} $\text{M}^{-1} \text{s}^{-1}$	k_{off} s^{-1}	K_d μM	$t_{1/2}$ s
DP178				
CD4-gp120	0.75×10^3	1.5×10^{-3}	2.0	462
CD4-gp140	0.93×10^3	1.0×10^{-3}	1.1	693
T649Q26L				
CD4-gp120	1.26×10^3	3.2×10^{-3}	2.54	217
CD4-gp140	0.88×10^3	1.1×10^{-3}	1.20	630

Figure 15

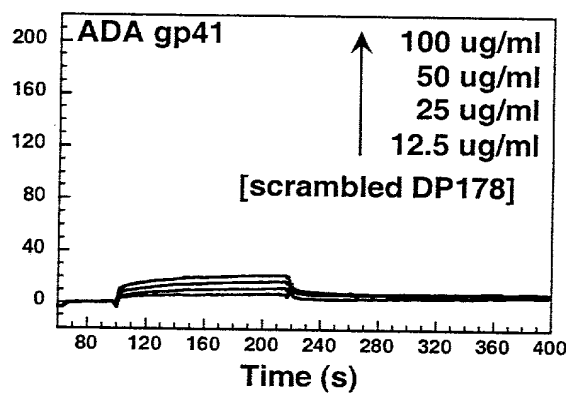
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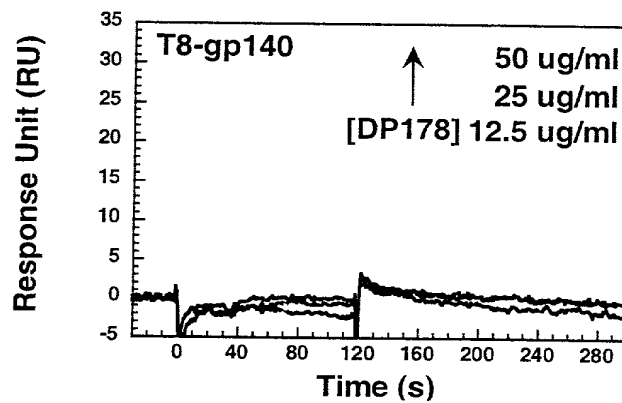
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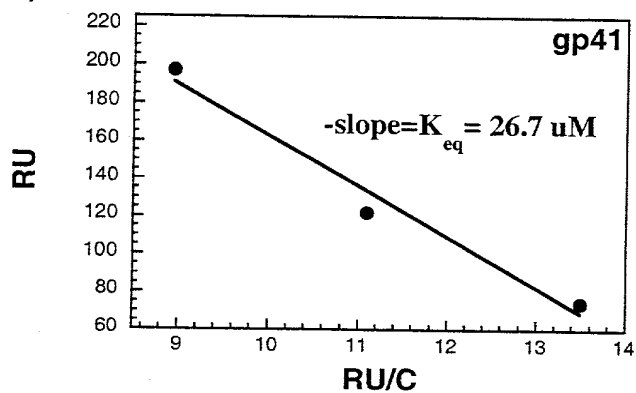
C)



D)



E)



F)

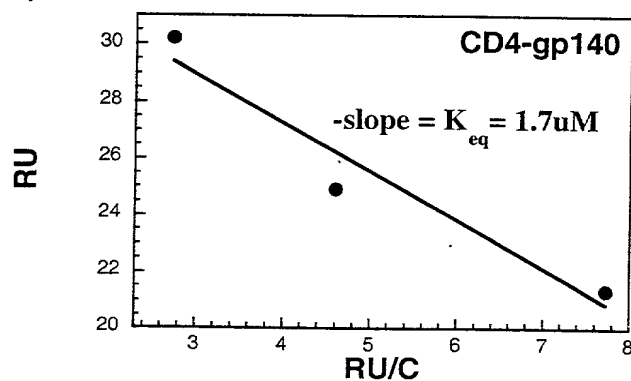


Figure 16

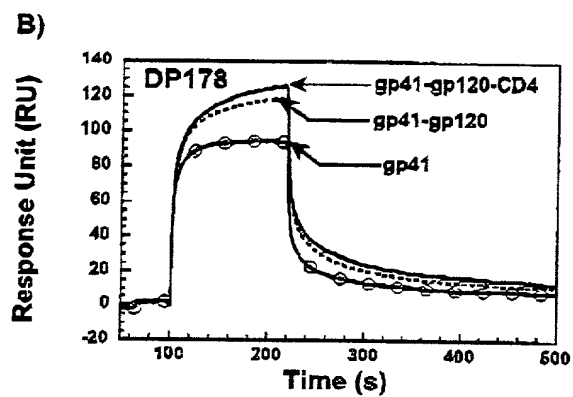
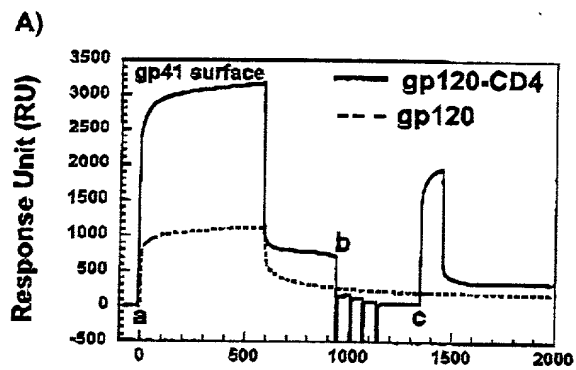


Figure 17

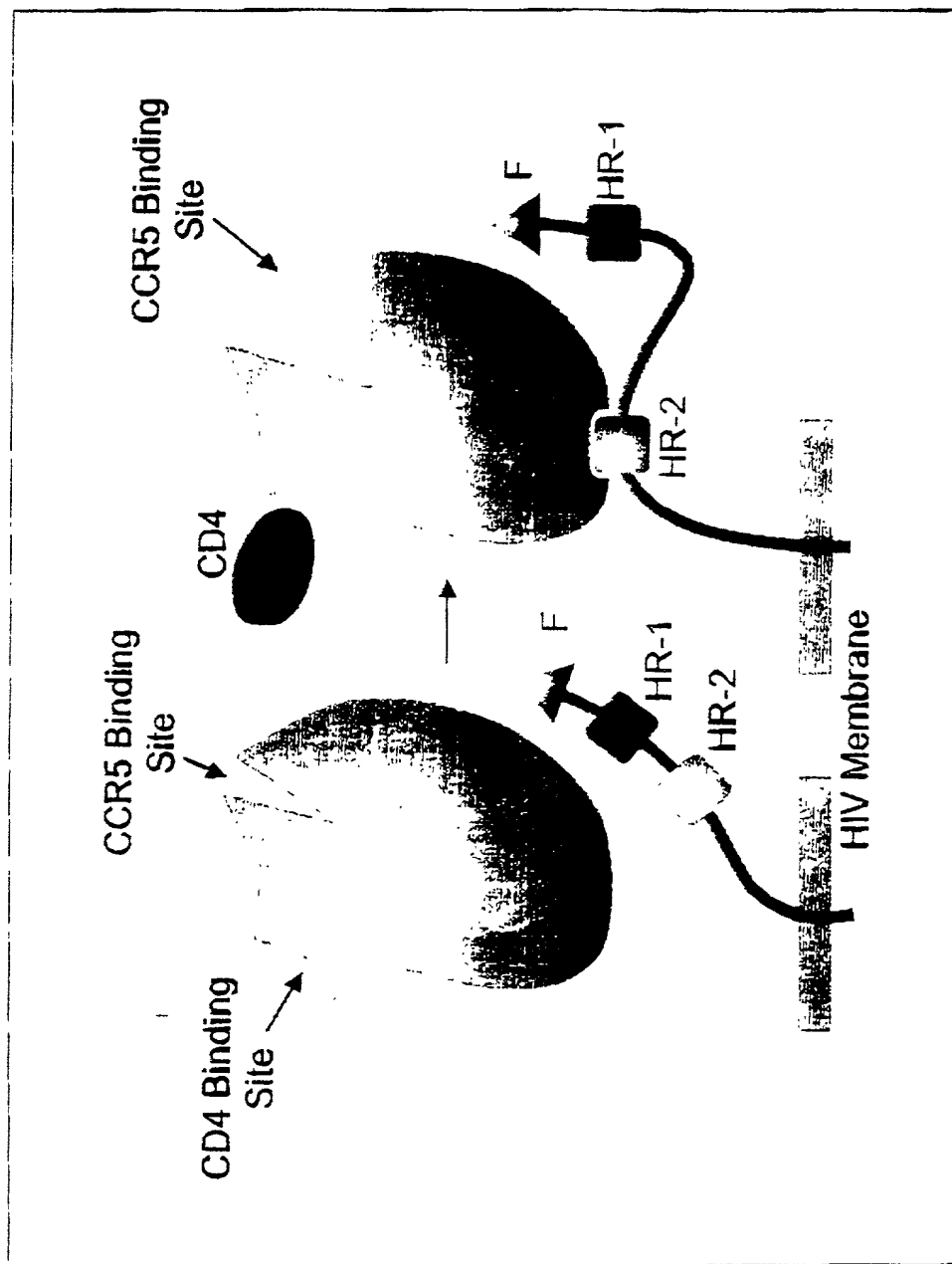


Figure 18

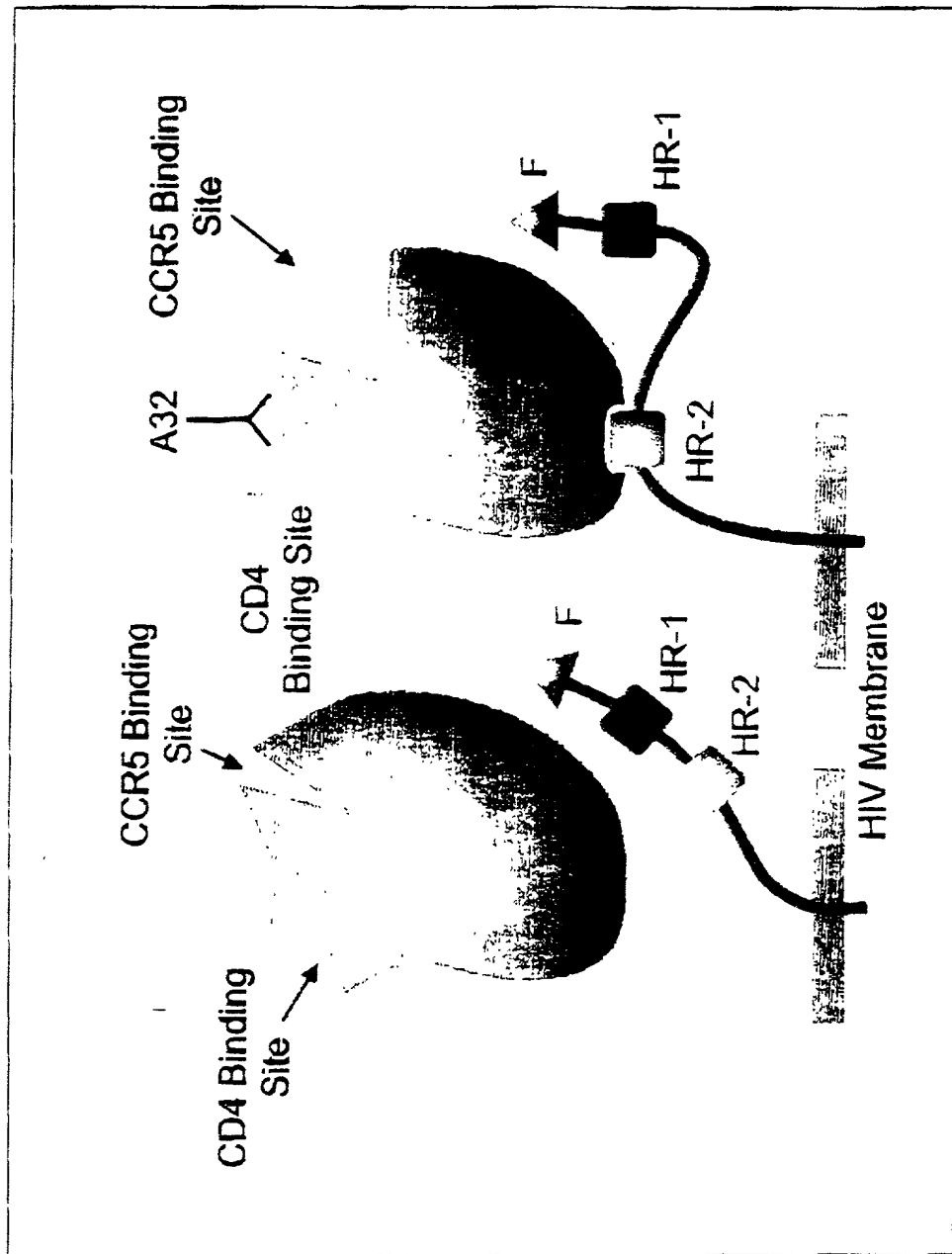


Figure 19

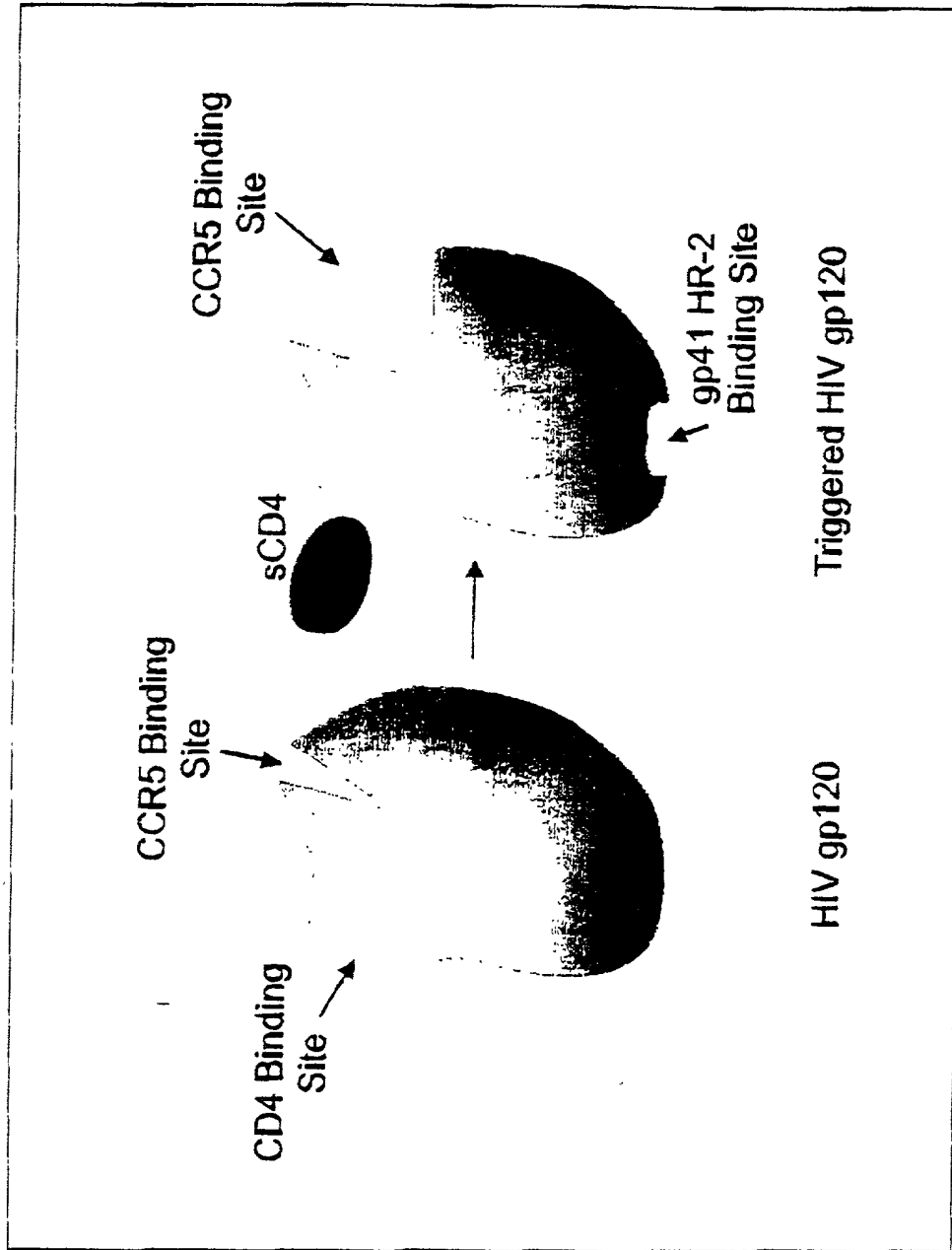


Figure 20

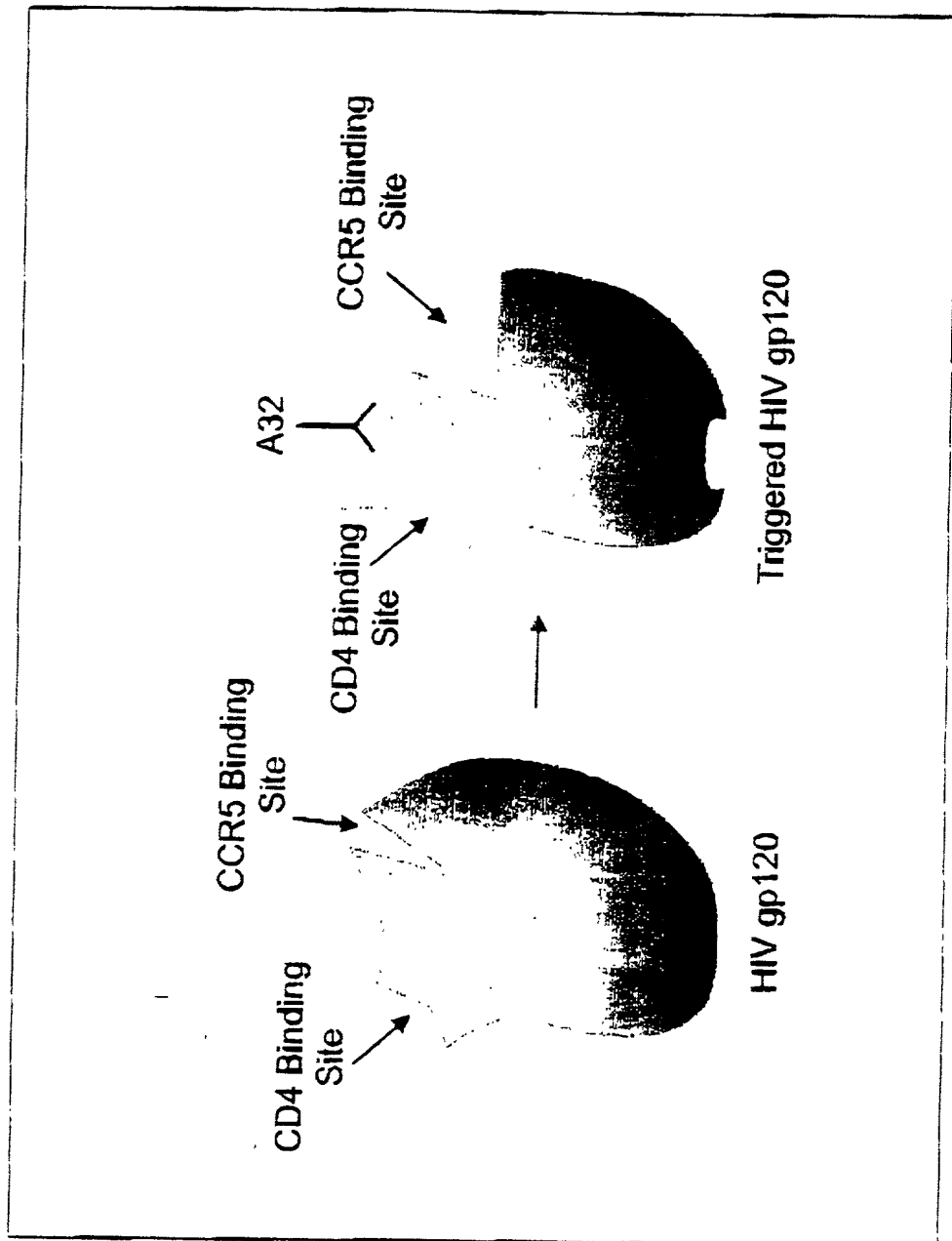


Figure 21

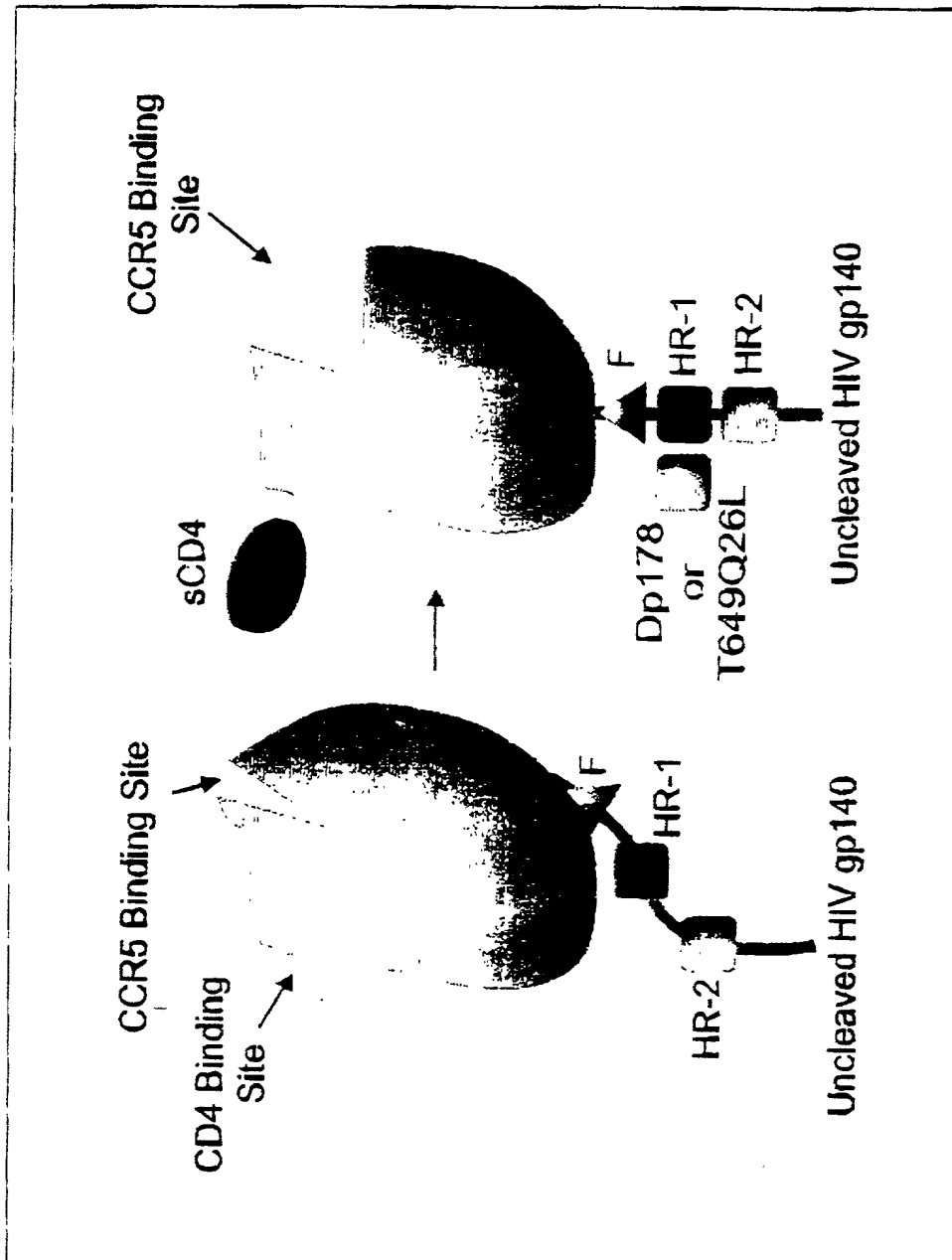


Figure 22

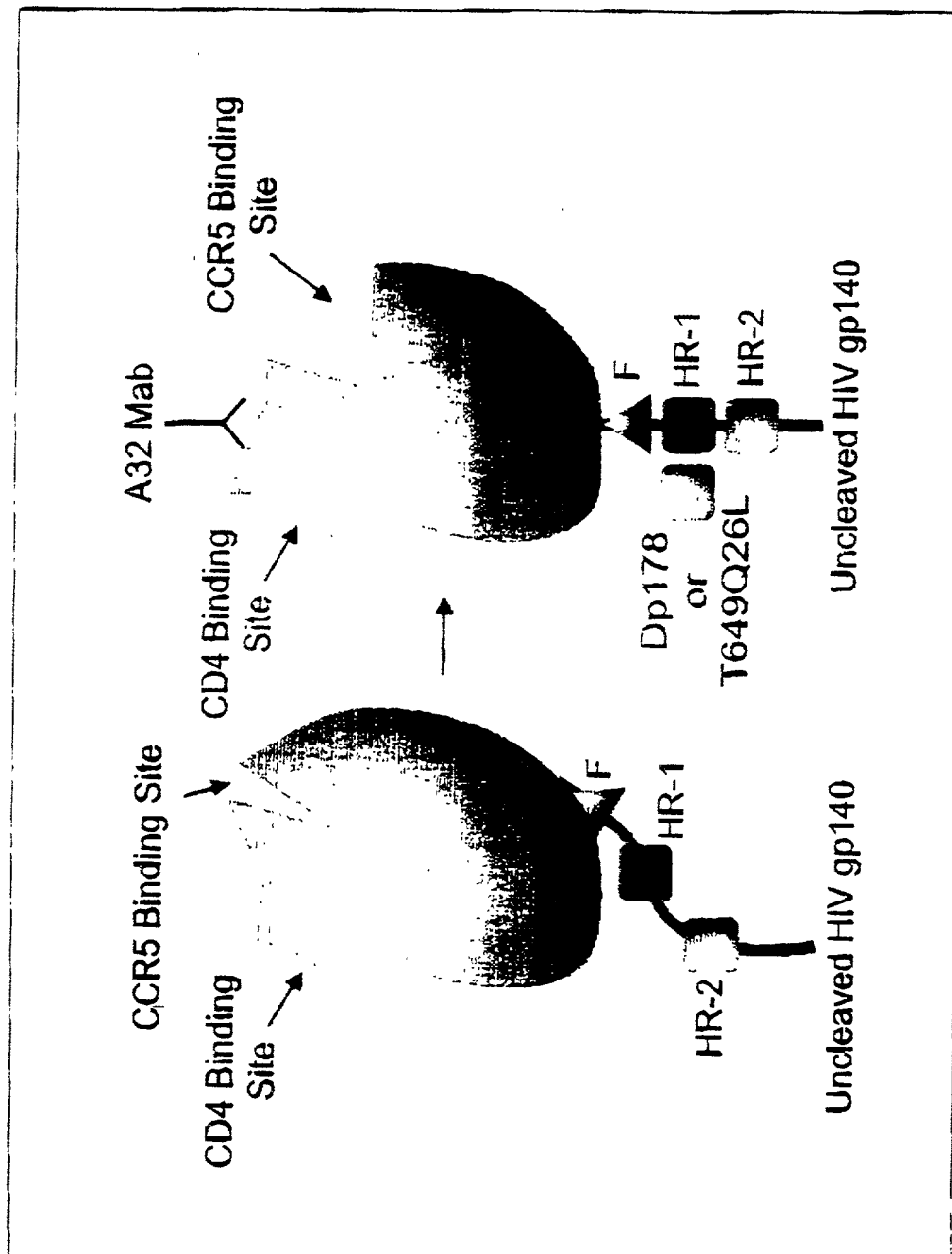


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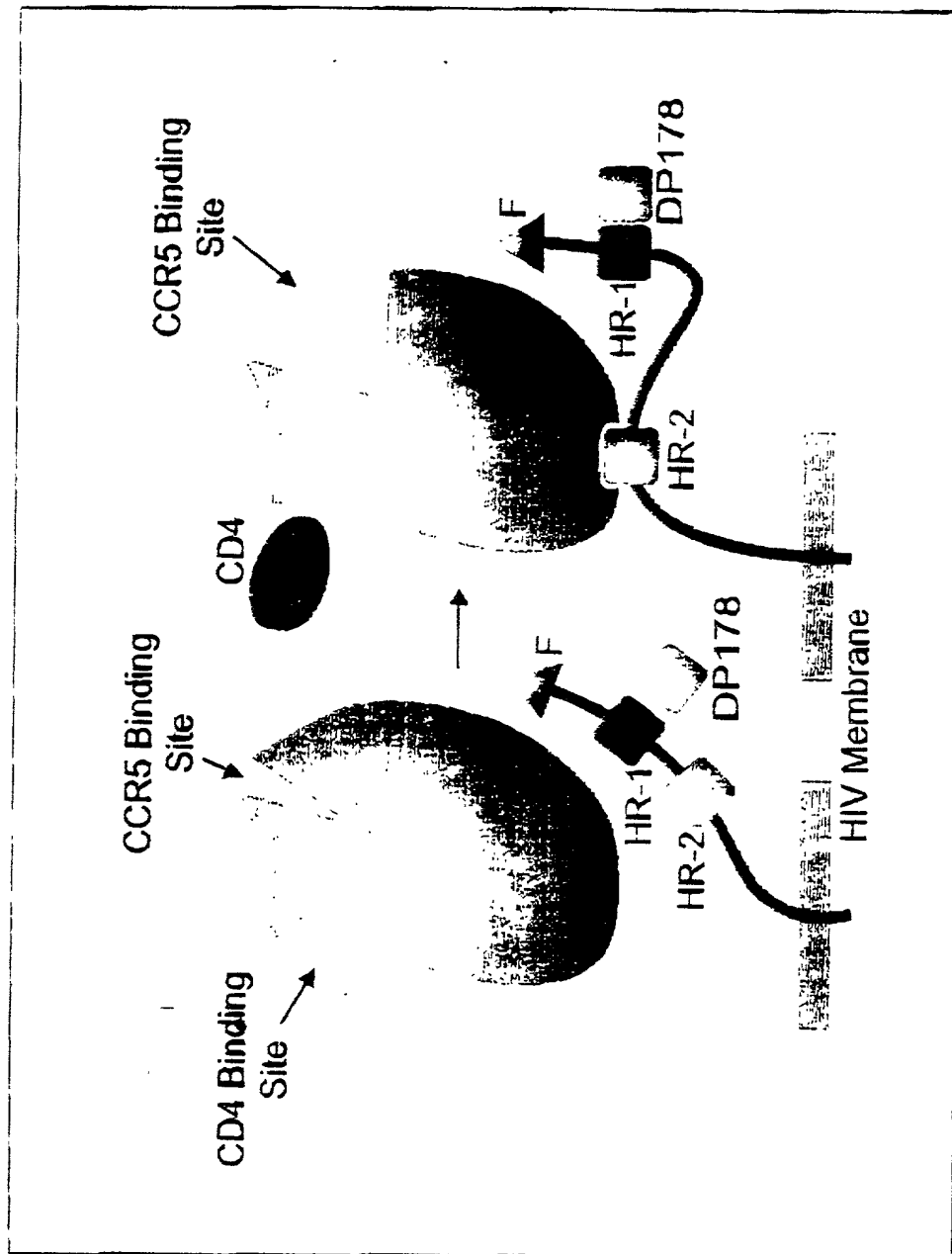


Figure 24

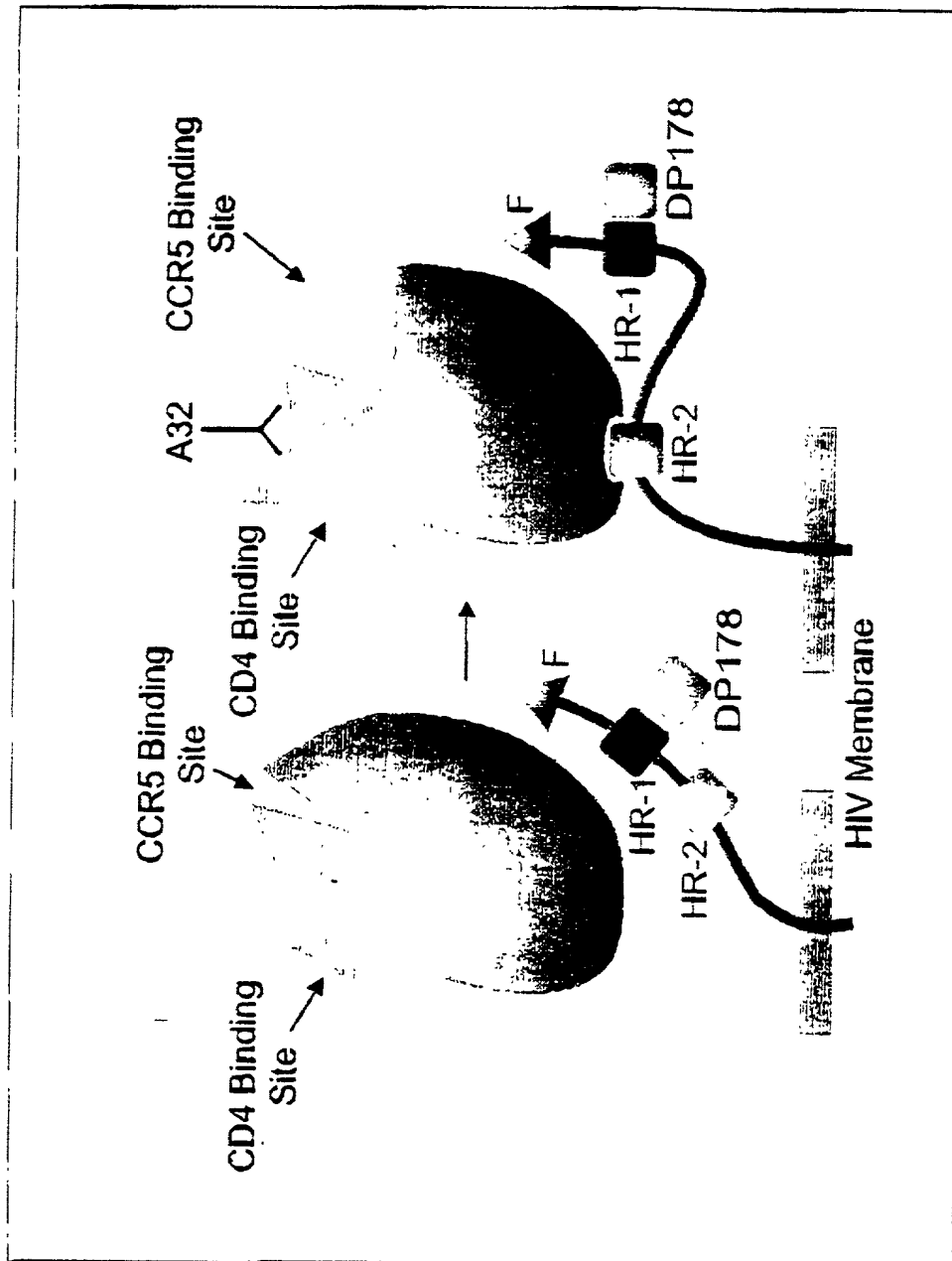


Figure 25

Figure 26